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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 28

Application Number: 09/290,251
Filing Date: April 13, 1999
Appellant(s): NAGAI ET AL.

Melvin Kraus
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 29, 2002.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is deficient because the appellant confusingly states that it is not possible for a signal for which copying once was permitted to exist in a DVD-ROM disk (page 5 of the Appeal Brief, lines 1-6). Such a signal can in fact exist on a DVD-ROM disk, as appellant states elsewhere (page 5 of the Appeal Brief, lines 12-14; see also the specification, page 2, line 21, through page 3, line 17). Such a signal on a DVD-ROM disk is evidence that unauthorized copying has

taken place, but it is quite possible. A violation of the copyright laws is not a violation of the laws of logic or physics.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: The Appellant describes claims 2-3, 5, 7, 15, 25-26, 28, 30, and 37 as rejected under 35 USC 103(a) as being unpatentable over Linnartz in view of Doi, Tozaki et al., Mardirossian, and Park. The claims listed were in fact rejected as unpatentable over Linnartz in view of Doi, Tozaki et al., and Mardirossian, but not in view of Park, and should be described as rejected as unpatentable over Linnartz in view of Doi, Tozaki et al., and Mardirossian. The Appellant describes the Examiner as "improperly relying on Park '826 to support the rejection without including Park '826 in the statement of the rejection as required by the decision of In re Hoch." In fact, Examiner did not rely on Park (U.S. Patent 5,796,826); the Examiner merely referred to Park parenthetically, writing, "(See *also, for example*, Park 5,796,826, Abstract; and column 5, lines 49-57.)" (emphasis added). Appellant should have been aware of this, because in the final Office Action, Examiner explicitly disclaimed any reliance on Park (pages 33-34 of the final Office Action).

(7) Grouping of Claims

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because, although certain claims are significantly different

from each other, and do not stand or fall together, others are closely parallel. In particular, independent claim 14 recites a method closely parallel to the apparatus claim 1, and claim 16 recites a computer-readable program closely parallel to claims 1 and 14. Examiner applied the same rejection to claims 14 and 16 as to claim 1. Similarly, claim 24 depends on claim 1; claims 36 and 38 depend on claims 14 and 16, respectively, and are closely parallel on claim 24. Examiner applied the same rejection to claims 36 and 38 as to claim 24. Examiner therefore believes that independent claims 1, 14 and 16 stand or fall together, as do dependent claims 24, 36, and 38. Appellants provide no arguments why these claims subject to the same rejection are separately patentable, instead writing that claims 14, 16, 24, 36, or 38 should be allowed for at least substantially the same reasons discussed with regard to claim 1.

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

6,209,092	Linnartz	03-2001
5,901,125	Doi	05-1999
5,729,516	Tozaki et al.	03-1998
5,636,096	Mardirossian	06-1997
5,633,841	Yokota et al.	05-1997

Fox, B., Abstract of article "Wobble Drives Pirates off the Digital Seas," New Scientist, February 22, 1997, p. 22.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-16 and 24-38 are rejected under 35 U.S.C. 103(a), as set forth in prior Office Action, Paper No. 17, and repeated below:

Claim Rejections – 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying permission on a signal of digitized video data and/or a signal of audio data or embedding the information therein (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproducing unit which reproduces the information concerning copying permission superimposed on or embedded in the video data and/or audio data (Abstract; column 5, lines 41-54); and a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45). Linnartz discloses a determining unit which determines whether the medium to be reproduced is a recordable medium (column 5, lines 54-66; column 7, lines 4-13), but does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording; however, Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus disclosed by Linnartz a determining unit which determines whether a medium to be reproduced is a medium dedicated to reproduction or a recordable medium, according to Doi, and to stop reproduction in

response to a result indicating that the medium is a medium dedicated to reproduction, for the obvious advantage of limiting the reproduction of proprietary information.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Doi as applied to claim 1 above. Linnartz does not expressly disclose that the stopping unit is responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the result of the determining by the determining unit indicating that the medium is a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the stopping unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the result of the determining unit indicating that the medium is a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi, Tozaki et al., and Mardirossian. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying permission on a signal of digitized video data and/or a signal of audio data or embedding the information therein (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproducing unit which reproduces the information concerning copying permission superimposed on or embedded in the video data and/or audio data (Abstract; column 5, lines 41-54); and a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45). Linnartz discloses a determining unit which determines whether the medium to be reproduced is a recordable medium (column 5, lines 54-66; column 7, lines 4-13), but does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording; furthermore, Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a determining unit which determines whether a medium to be reproduced is a medium dedicated to reproduction or a recordable medium, according to Doi, and to

stop reproduction in response to a result indicating that the medium is a medium dedicated to reproduction, for the obvious advantage of limiting the reproduction of proprietary information.

Linnartz does not disclose an error correction unit, but Tozaki et al. teach an error correction unit which conducts error correction according to an added correction code (column 14, lines 46-51; note also column 13, lines 51-57). Hence it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz an error correction unit, for the stated advantage of correcting errors.

Linnartz does not disclose a destroying unit which destroys reproduced data so as to make the video data and/or audio data non-reproducible in response to information indicating that copying once was permitted and a result of the determining unit indicating that the medium is a medium dedicated to reproduction. However, Mardirossian (5,636,096) teaches destroying data to prevent unauthorized copying (Abstract; column 5, lines 12-35). (See also, for example, Park, 5,796,826, Abstract; and column 5, lines 49-57.) Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a destroying unit which destroys reproduced data so as to make the video data and/or audio data non-reproducible in response to the information reproduced by a reproducing unit indicating that copying once was permitted and a result of the determining by the determining unit indicating that the medium is a medium

dedicated to reproduction, for the obvious advantages of preventing unauthorized reproduction and deterring attempts thereat.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz, Doi, Tozaki et al., and Mardirossian as applied to claim 2 above. Linnartz does not expressly disclose a destroying unit responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the result of the determining by the determining unit indicating that the medium is a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to destroy reproduced data to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Moreover, Mardirossian teaches destroying data to prevent unauthorized copying (Abstract; column 5, lines 12-35). (See also, for example, Park, 5,796,826, Abstract; and column 5, lines 49-57.) Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the destroying unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the result of the determining unit indicating that the medium is a medium dedicated to reproduction, for the advantage, as stated by

Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi, Tozaki et al. and Mardirossian. Claim 3 largely recites the same limitations as claim 2, and is therefore rejected on the same grounds. Claim 3 additionally recites that the destroying unit destroys data so as to make error detection of data not yet subjected to error correction processing possible and make error correction thereof impossible to certain indications. Neither Linnartz nor Tozaki et al. expressly disclose these limitations. However, when data is destroyed, error correction thereof becomes impossible; when data is not destroyed, error detection and correction by well-known techniques, as disclosed in Tozaki et al., may remain possible. Hence, the apparatus of claim 3 is held not to differ substantially from that of claim 2.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz, Doi, Tozaki et al., and Mardirossian as applied to claim 3 above. Linnartz does not expressly disclose a destroying unit responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the result of the determining by the determining unit indicating that the medium is a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to destroy video data and/or audio data to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67;

Art Unit: 3625

column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Moreover, Mardirossian teaches destroying data to prevent unauthorized copying (Abstract; column 5, lines 12-35). (See also, for example, Park, 5,796,826, Abstract; and column 5, lines 49-57.) Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the destroying unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the result of the determining unit indicating that the medium was a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying permission on a signal of digitized video data and/or a signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproduction unit which reproduces the information concerning copying

permission superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); and an identifying unit which determines whether the medium to be reproduced is a recordable medium (column 5, lines 54-66; column 7, lines 4-13), but does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording; furthermore, Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a determining unit which determines whether a medium to be reproduced is a medium dedicated to reproduction or a recordable medium, and to stop reproduction in response to a result indicating that the medium is a medium dedicated to reproduction, for the obvious advantage of limiting the reproduction of proprietary information.

Linnartz discloses a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted and a result of the identification by the identifying unit indicating that the medium is a medium dedicated to reproduction (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 5, lines 54-66; column 6, lines 22-45).

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Doi as applied to claim 4 above. Linnartz does not expressly disclose that the stopping unit is responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the result of the identification by the identifying unit indicating that the medium is a medium dedicated to reproduction to

judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65; see also column 5, lines 54-66; column 7, lines 4-13). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the stopping unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the result of the identification by the identifying unit indicating that the medium is a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi, Tozaki et al., and Mardirossian. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying permission on a signal of digitized video data and/or a

Art Unit: 3625

signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproducing unit which reproduces the information concerning copying permission superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); and an identifying unit which identifies whether the medium to be reproduced is a recordable medium (column 5, lines 54-66; column 7, lines 4-13), but does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording; furthermore, Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a determining unit which determines whether a medium to be reproduced is a medium dedicated to reproduction or a recordable medium, in accordance with Doi, and to stop reproduction in response to a result indicating that the medium is a medium dedicated to reproduction, for the obvious advantage of limiting the reproduction of proprietary information.

Linnartz does not disclose an error correction unit, but Tozaki et al. teach an error correction unit which conducts error correction according to an added correction code (column 14, lines 46-51; note also column 13, lines 51-57). Hence it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include an error correction unit, for the stated advantage of correcting errors.

Linnartz discloses a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted and a result of the identification by the identifying unit indicating that the medium is a medium dedicated to reproduction (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 5, lines 54-66; column 6, lines 22-45). Linnartz does not disclose a destroying unit which destroys reproduced data so as to make the video data and/or audio data non-reproducible in response to information indicating that copying once was permitted and a result of the determining unit indicating that the medium is a medium dedicated to reproduction. However, Mardirossian (5,636,096) teaches destroying data to prevent unauthorized copying (Abstract; column 5, lines 12-35). (See also, for example, Park, 5,796,826, Abstract; and column 5, lines 49-57.) Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include a destroying unit which destroys reproduced data so as to make the video data and/or audio data non-reproducible in response to the information reproduced by a reproducing unit indicating that copying once was permitted and a result of the determining by the determining unit indicating that the medium is a medium dedicated to reproduction, for the obvious advantages of preventing unauthorized reproduction and deterring attempts thereat.

Linnartz does not disclose an output unit which outputs video data and/or audio data representing a reason why reproduction is not possible. However, official notice is taken that it is well known for computers and other apparatuses to output data representing a reason why operations are not possible, and that it is well known to

convey information by video data (e.g., written words on a screen, diagrams, and other symbols) and by audio (e.g., spoken, recorded, or generated words, as well as buzzer sounds, etc.). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to output video data and/or audio data representing a reason why reproduction was not possible, for the obvious advantage of conveniently notifying users, and encouraging them to buy copies of the data they wished to reproduce.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz, Doi, Tozaki et al., and Mardirossian as applied to claim 5 above. Linnartz does not expressly disclose a destroying unit responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the result of the identification by the identifying unit indicating that the medium is a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to destroy video data and/or audio data to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65; see also column 5, lines 54-66; column 7, lines 4-13). Moreover, Mardirossian teaches destroying data to prevent unauthorized copying (Abstract; column 5, lines 12-35). (See

also, for example, Park, 5,796,826, Abstract; and column 5, lines 49-57.) Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the destroying unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the result of the determining unit indicating that the medium was a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying consent on a signal of digitized video data and/or a signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproducing unit which reproduces the information concerning copying permission superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); and a determining unit which determines whether the medium to be reproduced is a recordable medium (column 5, lines 54-66; column 7, lines 4-13), but does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording; furthermore, Doi teaches determining whether a medium

is dedicated to reproduction or recording (column 13, lines 46-55). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a determining unit which determines whether a medium to be reproduced is a medium dedicated to reproduction or a recordable medium, and to stop reproduction in response to a result indicating that the medium is a medium dedicated to reproduction, for the obvious advantage of limiting the reproduction of proprietary information.

Linnartz discloses a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted and a result of the identification by the identifying unit indicating that the medium is a medium dedicated to reproduction (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 5, lines 54-66; column 6, lines 22-45).

Linnartz does not disclose an output unit which outputs a control signal, the control signal instructing a video signal and/or audio signal representing a reason of stoppage to be outputted. However, official notice is taken that it is well known for computers and other apparatuses to output data representing a reason why operations are not possible, and that it is well known to convey information by video signals (e.g., written words on a screen, diagrams, and other symbols) and by audio signals (e.g., spoken, recorded, or generated words, as well as buzzer sounds, etc.). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to output a control signal instructing a video signal and/or audio signal representing a reason of stoppage, for the obvious advantage of conveniently

notifying users, and encouraging them to buy copies of the data they wished to reproduce.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Doi as applied to claim 6 above. Linnartz does not expressly disclose that the stopping unit is responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the result of the determining by the determining unit indicating that the medium is a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the stopping unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the result of the determining unit indicating that the medium is a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi, Tozaki et al., and Mardirossian. Linnartz discloses a reproduction apparatus for reproducing video data or audio data from a medium dedicated to reproduction or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying consent on a signal of digitized video data and/or a signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproducing unit which reproduces the information concerning copying consent superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); and a determining unit which determines whether the medium to be reproduced is a recordable medium (column 5, lines 54-66; column 7, lines 4-13), but does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording; furthermore, Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a determining unit which determines whether a medium to be reproduced is a medium dedicated to reproduction or a recordable medium, and to stop reproduction in response to a result indicating that the medium is a medium dedicated to reproduction, for the obvious advantage of limiting the reproduction of proprietary information.

Linnartz does not disclose an error correction unit, but Tozaki et al. teach an error correction unit which conducts error correction according to an added correction code (column 14, lines 46-51; note also column 13, lines 51-57). Hence it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include an error correction unit, for the stated advantage of correcting errors.

Linnartz discloses a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45), but does not disclose a destroying unit which destroys reproduced data so as to make the video data and/or audio data non-reproducible in response to information indicating that copying once was permitted and a result of the determining unit indicating that the medium is a medium dedicated to reproduction. However, Mardirossian (5,636,096) teaches destroying data to prevent unauthorized copying (Abstract; column 5, lines 12-35). (See also, for example, Park, 5,796,826, Abstract; and column 5, lines 49-57.) Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include a destroying unit which destroys reproduced data so as to make the video data and/or audio data non-reproducible in response to the information reproduced by a reproducing unit indicating that copying once was permitted and a result of the determining by the determining unit indicating that the medium is a medium dedicated to reproduction, for the obvious advantages of preventing unauthorized reproduction and deterring attempts

thereat. Moreover, it is held that when data is destroyed, error detection and error correction of the said data necessarily become impossible.

Linnartz does not disclose an output unit which outputs video data and/or audio data representing a reason why reproduction is impossible to be outputted. However, official notice is taken that it is well known for computers and other apparatuses to output data representing a reason why operations are not possible, and that it is well known to convey information by video data (e.g., written words on a screen, diagrams, and other symbols) and by audio (e.g., spoken, recorded, or generated words, as well as buzzer sounds, etc.). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to output video data and/or audio data representing a reason why reproduction was impossible to be outputted, for the obvious advantage of conveniently notifying users, and encouraging them to buy copies of the data they wished to reproduce.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz, Doi, Tozaki et al., and Mardirossian as applied to claim 7 above. Linnartz does not expressly disclose that the stopping unit is responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the result of the determining by the determining unit indicating that the medium is a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67;

column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the stopping unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the result of the determining unit indicating that the medium is a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz as applied to claim in view of Doi. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction or a recordable medium having video data and/or audio data and a medium identification code recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying consent on a signal of digitized video data and/or a signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a permission information reproduction circuit reproducing the information concerning copying consent superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); a

medium identification code detection circuit detecting the medium identification code (column 5, lines 54-66); and a reproduction stopping circuit stopping reproduction in response to the information reproduced by the permission information reproduction circuit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45) and that the medium identification code indicates a medium dedicated to reproduction (column 5, lines 54-66). Linnartz discloses determining whether the medium to be reproduced is a recordable medium (column 5, lines 54-66; column 7, lines 4-13), but does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording; furthermore, Doi teaches determining whether the medium identification code identifies the medium as a medium dedicated to reproduction or a recording (column 13, lines 46-55). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include determining whether a medium to be reproduced is a medium dedicated to reproduction or a recordable medium, for the stated advantage of limiting the reproduction of proprietary information.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Doi as applied to claim 8 above. Linnartz does not disclose integrating a medium identification detecting circuit and a reproduction stopping circuit into a single semiconductor device, but official notice is taken that it is well known to integrate a multiplicity of circuits into a single semiconductor device (as witness the terms "integrated circuit" and "computer on a chip"). Hence, it would have been obvious to

one of ordinary skill in the art of copy protection at the time of applicant's invention to integrate these several circuits into a single semiconductor device, for the obvious advantages of simplifying chip manufacture, not needing to connect a multiplicity of chips to one another, and enhanced security, in that signals within a single chip cannot be as readily detected and falsified as signals between separate chips or other arrangements of circuit elements.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Doi as applied to claim 8 above. Linnartz does not expressly disclose that the reproduction stopping circuit is responsive to both the information reproduced by the permission information reproduction circuit indicating that copying once was permitted and the medium identification code indicating a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the reproduction stopping circuit be responsive to both the information reproduced by the permission information reproduction circuit, indicating that copying once was permitted

and the medium identification code indicating a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying consent on a signal of digitized video data and/or a signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproduction unit for reproducing the information concerning copying consent superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); and a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45) and that the medium is a medium dedicated to reproduction (column 5, lines 54-66; column 7, lines 4-13). Linnartz does not disclose a detection unit for detecting reflectance of a disk, or a determining unit for determining whether the disk is a recordable medium or a medium dedicated to reproduction on the basis of the reflectance of the disk, but Doi teaches these (Abstract; column 13, lines 46-55). Hence, it would have been obvious to one of

ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a detection unit for detecting the reflectance of a disk, and a determining unit for determining whether a medium is a recordable medium or a medium dedicated to reproduction on the basis of the reflectance of the disk, for the obvious advantage of preventing the unauthorized reproduction of proprietary data.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Doi as applied to claim 10 above. Linnartz does not expressly disclose that the stopping unit is responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the determining unit indicating that the medium is a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the stopping unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the determining unit indicating that the medium is a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of

preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying consent on a signal of digitized video data and/or a signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproduction unit for reproducing the information concerning copying consent superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); an identification detection unit for detecting the medium identification code (column 5, lines 54-66; column 7, lines 4-13); and a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45) and that the medium is a medium dedicated to reproduction (column 5, lines 54-66; column 7, lines 4-13). Linnartz does not disclose a detection unit for detecting reflectance of a disk, or a determining unit for determining whether the disk is a recordable medium or a medium dedicated to reproduction on the basis of the reflectance of the disk, but Doi teaches these (Abstract; column 13, lines 46-55). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at

the time of applicant's invention to include in the apparatus of Linnartz a detection unit for detecting the reflectance of a disk, and a determining unit for determining whether a medium is a recordable medium or a medium dedicated to reproduction on the basis of the reflectance of the disk, and having the stopping unit stop reproduction based in part on the determining unit indicating a medium dedicated to reproduction, for the obvious advantage of preventing the unauthorized reproduction of proprietary information.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz and Doi as applied to claim 11 above. Linnartz does not expressly disclose that the stopping unit is responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and the medium identification code or the determining unit indicating a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Doi teaches determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55); also, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the stopping unit be responsive to both the information reproduced by the reproducing unit, indicating that copying once was permitted and the medium identification code or the determining unit

indicating a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Yokota et al. and of Fox. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying consent on a signal of digitized video data and/or a signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproduction unit for reproducing the information concerning copying consent superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); and a stopping unit for stopping reproduction provided that the information reproduced by the reproduction unit indicates that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45). Linnartz does not disclose a wobble detection unit for detecting wobbled grooves existing on a disk, but Yokota et al. teach such a wobble detection unit (column 3, lines 43-55). Furthermore, Fox explicitly teaches preventing piracy by a system which rejects disks for copying if they lack wobbled grooves (Abstract). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a wobble detection unit for detecting

wobbled grooves, and to stop reproduction if the wobble detecting unit does not detect wobbled grooves, for the stated advantage of limiting the reproduction of proprietary data.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz, Yokota et al., and Fox as applied to claim 12 above. Linnartz does not expressly disclose that the stopping unit is responsive to both the information reproduced by the reproduction unit indicating that copying once was permitted and the wobble detecting unit not detecting wobbled grooves to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Yokota teaches a wobble detection unit (column 3, lines 43-55); and Fox explicitly teaches preventing piracy by a system which rejects disks for copying if they lack wobbled grooves (Abstract). Further, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the stopping unit be responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and wobble detecting unit not detecting wobbled grooves, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing

between consumers' own creations and content that originates from professional publishers.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Yokota et al. and of Fox. Linnartz discloses a reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction or a recordable medium having video data and/or audio data recorded thereon, said video data and/or audio data being generated by superimposing information concerning copying consent on a signal of digitized video data and/or a signal of audio data (Abstract; see also column 2, line 26, through column 3, line 67), said reproduction apparatus comprising: a reproduction unit for reproducing the information concerning copying consent superimposed on the video data and/or audio data (Abstract; column 5, lines 41-54); and identification unit for detecting the medium identification code (column 5, lines 54-66; column 7, lines 4-13); and a stopping unit for stopping reproduction provided that the information reproduced by the reproduction unit indicates that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45) or the medium identification code indicates a medium dedicated to reproduction (column 5, lines 54-66; column 7, lines 4-13). Linnartz does not disclose a wobble detection unit for detecting wobbled grooves existing on a disk, but Yokota et al. teach such a wobble detection unit (column 3, lines 43-55). Furthermore, Fox explicitly teaches preventing piracy by a system which rejects disks for copying if they lack wobbled grooves (Abstract). Hence, it would have been obvious to one of

ordinary skill in the art of copy protection at the time of applicant's invention to include in the apparatus of Linnartz a wobble detection unit for detecting wobbled grooves, and to stop reproduction if the wobble detecting unit does not detect wobbled grooves, for the stated advantage of limiting the reproduction of proprietary data.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz, Yokota et al., and Fox as applied to claim 13 above. Linnartz does not expressly disclose that the stopping unit is responsive to both the information reproduced by the reproduction unit indicating that copying once was permitted and the wobble detecting unit not detecting wobbled grooves or the medium identification code indicating a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy. However, Linnartz does disclose that the stopping unit is responsive to information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45); Yokota teaches a wobble detection unit (column 3, lines 43-55); and Fox explicitly teaches preventing piracy by a system which rejects disks for copying if they lack wobbled grooves (Abstract). Further, Linnartz discloses copy bits indicating whether a medium is a medium dedicated to reproduction (column 1, lines 45-65, in particular lines 63-65). Hence, it would have been obvious to one of ordinary skill in the art of copy protection at the time of applicant's invention to have the stopping unit be responsive to both the information reproduced by the reproducing unit indicating that copying once was permitted and wobble detecting unit not detecting wobbled grooves or the medium

identification code indicating a medium dedicated to reproduction, for the advantage, as stated by Linnartz, of preventing unauthorized copying and distinguishing between consumers' own creations and content that originates from professional publishers.

Claims 14 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi. Claim 14 recites a method of doing what claim 1 recites apparatus for doing; therefore, claim 14 is rejected on the same grounds as claim 1. (Examiner does not believe the distinction between permission and consent to be of any importance in this context.)

Similarly, claim 36 is closely parallel to claim 24, and rejected on the same grounds.

Claims 15 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi, Tozaki et al., and Mardirossian. Claim 15 recites a method of doing what claim 2 recites apparatus for doing; therefore, claim 15 is rejected on the same grounds as claim 2. A slight complication is that claim 15 additionally recites "simultaneously judging error correction to be impossible," which claim 2 does not. However, if data is being destroyed altogether, as recited in claims 2 and 15, error correction is held to be inherently impossible, or at least pointless. One cannot correct data which does not exist.

Similarly, claim 37 is essentially parallel to claim 25, and rejected on the same grounds. A slight complication is introduced in that claim 25 recites "to destroy

reproduced data” where claim 37 recites “to destroy video data and/or audio data.” However, as the data to be reproduced in Linnartz’s patent is audio and/or video data (see Abstract, for example), this difference is held not to be essential.

Claims 16 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Doi. Claim 16 recites a program for doing what claim 1 recites apparatus for doing; therefore, claim 16 is rejected on the same grounds as claim 1. (Examiner does not believe the distinction between permission and consent to be of any importance in this context.)

Similarly, claim 38 is closely parallel to claim 24, and rejected on the same grounds.

(11) *Response to Argument*

Examiner believes all claims to be properly rejected under 35 U.S.C. 103 (a), as obvious combinations of features well known in the art of copy protection, and believes that there is valid motivation for all combinations of references.

Appellants’ choice of terminology is not ideal. Appellants use the expression “recordable medium” to refer a medium such as a DVD-RAM disk, and “medium dedicated to reproduction” to refer to a medium such as a DVD-ROM (read only memory) disk. RAM disks are indeed recordable, in that new data can be recorded on them; ROM disks are not recordable, and are normally manufactured by pressing with impressions representing data permanently embedded into them. However, while the data on a ROM disk can be reproduced (played, or copied to a RAM disk), so can the

data on a RAM disk, so ROM disks are not the only "media dedicated to reproduction." "Non-recordable medium" might be a better term. Secondly, ROM disks may have copy protection features to prevent them from being reproduced, as taught in the instant application (Summary of Invention, pages 2 and 3) and in such prior art as Linnartz (column 5, line 54, through column 6, line 54). Referring to pressed or ROM disks as "media dedicated to reproduction" is questionable when they incorporate features specifically to prevent their content from being reproduced. It is suggested that the honorable members of the Board keep in mind what Appellants' terms refer to.

With regard to the first issue, and with regard to claim 1 in particular, Appellants set forth the question in dispute at considerable length, and argue their position. Examiner will not attempt to reply at equal length, particularly since substantial extracts from the rejection and response to arguments in Examiner's final Office Action are quoted in Appellants' Appeal Brief. The fundamentals are as follows: Appellants claim a reproduction apparatus comprising a reproducing unit, a determining unit, and a stopping unit. Linnartz, the primary reference, discloses a reproducing unit. Linnartz discloses a determining unit which determines whether the medium to be reproduced is a recordable medium (column 5, lines 54-66; column 7, lines 4-13), but does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording. It is to be noted, however, that Linnartz recites, "A copy control concept is disclosed that relies on physical marks on the medium . . . and a copy control ticket that is represented as a digital number." (Column 7, lines 4-7.) Also, "Recordable media may carry a fixed predetermined medium mark identifying the

medium as recordable, or as a professional disc from a known source.” (Column 5, lines 61-63.) Linnartz goes on to disclose “A medium mark P that is present on professionally released discs/storage media; recordable media carry a predetermined value of P,” (column 6, lines 2-4) and to state, “The player only provides F(T) to the recorder if the player reads from an original disc, i.e., with a valid P matching T.” T is the copy control ticket (column 6, lines 17-21), and F(T) is essential to determining whether reproduction is allowed (column 6, line 22, through column 7, line 9), so Linnartz teaches that the medium mark, which can indicate whether the medium is recordable or dedicated to reproduction, is used in judging whether to stop reproduction. Linnartz falls short of anticipating claim 1 only because Linnartz is not fully explicit in stating that an invalid medium mark P is a P indicating that the medium is a medium dedicated to reproduction.

Thus, while the Linnartz patent does not clearly and expressly disclose determining whether the medium to be reproduced is dedicated to reproduction or to recording, it comes very close, since the “predetermined medium mark” can be used to determine whether the medium is recordable, or else a professionally manufactured disc, and thus, in Appellants’ terminology, dedicated to reproduction. Doi does expressly disclose determining whether a medium is dedicated to reproduction or recording (column 13, lines 46-55). Examiner held the combination of Linnartz with Doi to be obvious to one of ordinary skill in the art of copy protection; Appellants dispute that. Appellants argue that nothing in Doi suggests stopping reproduction in response to a result indicating that the medium is a medium dedicated to reproduction “as alleged

by the Examiner” (the Appeal Brief, page 13). It is true that Doi does not suggest stopping reproduction in response to a result indicating that the medium is a medium dedicated to reproduction, but Examiner never alleged any such teaching in Doi. Rather, Examiner relied on Linnartz’s disclosure of a stopping unit which stops reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45). Linnartz does not expressly disclose stopping reproduction in response to determining that the medium is a medium dedicated to reproduction, but, as set forth in the preceding paragraph, Linnartz’s use of a medium mark for determining whether to enable or stop reproduction comes close; and Examiner held stopping reproduction in response to determining that the medium is a medium dedicated to reproduction to be obvious for the advantage of limiting the reproduction of proprietary information, which is the goal of Linnartz’s invention.

Appellants next argue that that the motivation to combine Linnartz and Doi was found only in the Appellants’ disclosure, and is therefore impermissible hindsight reasoning. Examiner disagrees. The basic purpose of Linnartz’s invention is to prevent or limit unauthorized copying, and Linnartz discloses – as background prior art – that “Other copy bits may indicate that the medium containing the information is a ‘professional’ medium manufactured by pressing, and is not a ‘recordable’ disc” (column 1, lines 45-65). It is difficult to see what purpose these “other copy bits” may have had, unless to determine whether copying was authorized, or what benefit there was in determining whether copying was authorized, unless unauthorized reproduction was to

be stopped; and Linnartz, as noted, expressly discloses stopping unauthorized copying. As set forth above, Linnartz goes on to disclose the use of a medium mark P in his own invention, for the same purpose of stopping unauthorized reproduction (column 5, line 54, through column 7, line 9). Thus, there is motivation to combine the teachings of Doi with those of Linnartz, both in Linnartz, and in the knowledge generally available to one of ordinary skill in the prior art, as admitted background of the primary reference.

Appellants argue that the combination would not be obvious because Doi uses the result of such a determination to control the power and wavelength of a laser used for reproduction, rather than to determine whether to stop reproduction. However, Doi was not relied on for motivation, and it is not necessary that Doi's technique of determining whether a medium was recordable or devoted to reproduction was used, in Doi's invention, for the same purpose as in claim 1 or as in Linnartz. Motivation to make a combination must be found in one of the references (as it is found in Linnartz), or in the knowledge generally available to one of ordinary skill in the art (as it is also found in this case). [*In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).] However, Examiner is not aware of any requirement that motivation be found in every reference whose teachings are combined.

Appellants devote several pages to the DCC (digital compact cassette) copy protection system mentioned as background in Linnartz, declaring it to be the Serial Copy Management System (SCMS) referred to in 17 U.S.C. 1002(a) and described in International Standard IEC 60958-3. Appellants argue the SCMS is concerned solely

with stopping copying of a signal which is not permitted to be copied, rather than stopping reproduction of a copied signal for which copying once was permitted and which is recorded on a medium dedicated to reproduction, as recited in claim 1 (Appeal Brief, page 24, lines 16-24). Examiner responds that this argument overlooks two important points. The first is that Linnartz, in his background discussion, briefly describes the DCC copy protection system, with "copy bits" indicating a copy status of "no copy allowed", "free copy", or "one generation of copy allowed" (column 1, lines 59-62), and then refers to "Other copy bits" which may indicate whether the medium to be copied is a "professional" medium manufactured by pressing or a "recordable" disc. The second point is that the DCC/SCMS system is prior art disclosed as background by Linnartz; what Linnartz describes and claims as his invention goes beyond the DCC/SCMS system. In particular, the "no copy allowed" status in the SCMS does not necessarily mean that copying once was permitted, but Linnartz discloses a system where the status of a signal does indicate that copying once was permitted, but is longer permitted, the maximum allowable number of generations of copies having been made (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45). This is why Examiner made new rejections based on Linnartz as the primary reference after Appellants' representative, in a personal interview, made a persuasive case that Tozaki did not quite provide grounds for rejection (referred to on page 23 of the Appeal Brief).

Next, Appellants refer to Table C.1 on page 55 of IEC 60958-3 (Appeal Brief, page 24, line 25, through page 25, line 13) and argue that what is disclosed there does

not provide grounds to reject claim 1. Examiner responds that this is irrelevant; claim 1 was not rejected as obvious over IEC 60958-3, nor (in the last Office Action) over Tozaki, but over Linnartz in view of Doi. The next several pages of the Appeal Brief (through page 27) simply recapitulate and reiterate Appellants' arguments, which are already treated above.

Claim 4 is largely similar to claim 1, but recites an identifying unit rather than a determining unit. Examiner does not believe that identifying whether the medium to be reproduced is a medium dedicated to reproduction or a recordable medium is substantively different from determining whether the medium to be reproduced is a medium dedicated to reproduction or a recordable medium; nor do Appellants present any argument for a substantive difference. Instead, Appellants argue that claim 4 should be allowed for "at least substantially the same reasons" set forth with regard to claim 1. Examiner holds that claim 4 should be rejected for substantially the same reasons set forth above with regard to claim 1.

Claim 6 is largely parallel to claim 1, but recites the additional feature of an output unit which outputs a control signal, the control signal instructing a video signal and/or audio signal representing a reason of stoppage to be outputted. Examiner found this additional feature to be obvious, a position which Appellants do not dispute; instead their position is that claim 6 should be allowed for substantially the same reasons they set forth with regard to claim 1. Once again, Examiner holds that the claim should be rejected for substantially the same reasons set forth above with regard to claim 1.

Claim 8 is largely parallel to claim 1, but recites a permission information reproducing circuit reproducing the information concerning copying consent superimposed on the video data and/or audio data, instead of a reproducing unit which reproduces the information concerning copying permission superimposed on or embedded in the video data and/or audio data; and also a medium identification code detecting circuit instead of a determining unit which determines whether the medium is a recordable medium or a medium dedicated to reproduction; and a reproduction stopping circuit instead of a stopping unit which stops reproduction. These are further distinctions with little or no difference; Appellants do not present any arguments for a real difference between the limitations of claims 1 and 8, or attempt to show that the cited art which reads on claim 1 does not read on claim 8; instead, Appellants submit that claim 8 should be allowed "for at least substantially the same reasons" as claim 1, while Examiner holds that claim 8 should be rejected for substantially the same reasons as claim 1.

Claim 9 depends on claim 8, and recites that two of the circuits of claim 8 are integrated into a single semiconductor device. Appellants submit that Linnartz and Doi do not disclose or suggest this feature of claim 9. Examiner never maintained that Linnartz and Doi do; instead, Examiner took official notice, never challenged by Appellants, that it is well known to integrate a multiplicity of circuits into a single semiconductor device, and supplied motivation on the basis of the knowledge generally available to one of ordinary skill in the art.

Claim 10 is another independent claim largely parallel to claim 1, the main difference being that claim 10 recites a detecting unit for detecting reflectance of a disk, and a determining unit for determining whether the disk is a recordable medium or a medium dedicated to reproduction on the basis of the reflectance of the disk. Determining whether the disk is a recordable medium or a medium dedicated to reproduction on the basis of the reflectance of the disk is precisely what Doi teaches. Hence, when Appellants assert that Linnartz and Doi do not disclose or suggest a determining unit for determining whether the disk is a recordable medium or a medium dedicated to reproduction on the basis of the reflectance of the disk, and a stopping unit for stopping reproduction in response to the information reproduced by the reproducing unit indicating that copying once was permitted [disclosed by Linnartz] and said determining unit indicating that the medium is a medium dedicated to reproduction, Appellants must mean that the stopping unit is not disclosed by Linnartz and Doi. Examiner replies that such a stopping unit is obvious for the reasons set forth in finding the stopping unit of claim 1 obvious.

Claim 11 is largely parallel to claim 10, and thus not enormously different from claim 1. Claim 11 differs from claim 10 in that claim 11 recites a medium identification code detecting unit for detecting a medium identification code, in addition to the reflectance detecting unit. Appellants do not set forth any detailed arguments based on the differences between claim 11 and claim 1; they merely assert that Linnartz and Doi do not disclose or suggest the limitations of claim 11, "for at least substantially the same reasons" set forth with regard to claim 1. As Linnartz expressly discloses detecting a

medium identification code (column 5, lines 54-6; column 7, lines 4-13), while Doi teaches detecting reflectance, claim 11 is held to be obvious, for substantially the same reasons set forth with regard to claim 1.

Claim 14 is a method claim closely parallel to claim 1 (an apparatus claim), and is therefore held to be unpatentable on the same grounds set forth in rejecting claim 1. Likewise, claim 16 recites a program for doing what claim 1 recites apparatus for doing; claim 16 is therefore held to be unpatentable on the same grounds set forth in rejecting claim 1. Appellants do not present any argument for a method or program claim being patentable when a closely parallel apparatus claim is not; they merely submit that claims 14 and 16 should be allowed "for at least the substantially the same reasons" set forth with regard to claim 1. Examiner holds that claims 1, 14, and 16 stand or fall together, and believes that they fall together, for the reasons set forth above with regard to claim 1.

Claim 24 depends on claim 1, and recites the explicit limitation that the stopping unit is responsive to both the information indicating that copying once was permitted, and the determining by the determining unit that the medium is a medium is a medium dedicated to reproduction to judge presence of an unauthorized copy in the medium and to stop reproduction to protect information in the unauthorized copy from being reproduced. Appellants submit that Linnartz and Doi do not disclose or suggest the features of claim 24 "for at least substantially the same reasons discussed above [in the Appeal Brief] that Linnartz and Doi do not disclose or suggest the similar features of claim 1," but do not reply to Examiner's rejection of claim 24 beyond asserting that

Linnartz and Doi do not disclose or suggest the claimed features. Examiner reiterates his position that all limitations of claim 24 are obvious over Linnartz and Doi, as set forth in the rejection of claim 24 under 35 U.S.C. 103(a), quoted above in the Grounds of Rejection, section **(10)** of this Examiner's Answer. Examiner agrees that the features of claim 24 are similar to those of claim 1, but believes that the proper conclusion is that claim 24, like claim 1, is unpatentable.

Claims 27, 29, 31, 32, 33, 36, and 38 are substantially parallel to claim 24, and depend on claims 4, 6, 8, 10, 11, 14, and 16, respectively. Appellants argue that each of these dependent claims should be allowed for at least substantially the same reasons as claim 1; Examiner holds that each of these dependent claims should be rejected for substantially the same reasons as claim 1. Appellants present no new or separate arguments for the allowability of these dependent claims.

The second major issue of the case is whether claims 2-3, 5, 7, 15, 25-26, 28, 30, and 37 should be rejected as unpatentable over Linnartz in view of Doi, Tozaki, and Mardirossian. (Contrary to what Appellants say, these claims were not rejected in view of Park '826, which Examiner only mentioned parenthetically. Appellants wrote in the response filed August 22, 2001, that "[T]he Examiner's comments regarding Park will be disregarded until such time that the Examiner includes Park in the statement of the rejection of claims 2-3, 5, 7, and 15," to which Examiner replied (in the final Office Action mailed October 31, 2001, "Examiner responds that Applicant is, in Examiner's view, perfectly at liberty to disregard Examiner's comments regarding Park, although

Examiner respectfully suggests that it might not be expedient for Applicant, should he amend claims in an effort to make them patentable, to disregard the existence of Park as possibly relevant prior art, which might be relied upon in future.”)

Claim 2 bears some resemblance to claim 1, but also recites an error correction unit which conducts error correction according to an added error correction code, and recites a destroying unit rather than a stopping unit. Appellants submit that Linnartz and Doi do not disclose or suggest a determining unit which determines whether the medium to be reproduced is a medium dedicated to reproduction or a recordable medium; Examiner responds that Doi quite explicitly discloses exactly this, while Linnartz refers to “Other copy bits” which may indicate whether the medium is a “professional” medium or a “recordable” disc (column 1, lines 63-65). Appellants submit that Linnartz and Doi do not disclose a destroying unit according to the limitations of claim 2, as indeed Linnartz and Doi do not, but Appellants go on to write “Nor is it seen where Tozaki, Mardirossian, and Park ‘826 disclose or suggest these features of claim 2.” In rejecting claim 2, Examiner set forth where Mardirossian teaches destroying data to prevent unauthorized copying, namely the Abstract and column 5, lines 12-35. Hence, it can scarcely be maintained, in view of Mardirossian, that it is unknown to destroy data in order to prevent unauthorized copying.

Appellants further argue that Mardirossian discloses destroying recorded data on a disk, rather than destroying reproduced data. Appellants also submit that Park ‘826 discloses destroying a scrambling key which is reproduced from a video tape when a number of times the video tape is permitted to be reproduced is zero, rather than

destroying reproduced data. However, Examiner did not contend that Mardirossian (let alone Park, which was not relied upon) discloses destroying precisely the same data in the same circumstances as recited in claim 2. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, the teachings of Mardirossian would have suggested to those of ordinary skill in the art that data may be destroyed in order to prevent or limit unauthorized copying, because Mardirossian discloses destroying data to prevent unauthorized copying. As the basis and purpose of Linnartz, the primary reference, is to prevent unauthorized copying (while enabling unauthorized copying), Mardirossian is clearly analogous art, and the combination of references suggests destroying data so as to make contents whose reproduction is unauthorized impossible to reproduce.

Appellants submit, in conclusion that the references relied on by Examiner (and Park '826 as well) do not disclose or suggest certain limitations of claim 2. For the reasons set forth in the Grounds of Rejection, and defended in the preceding two paragraphs, Examiner holds that the references relied on do make obvious all limitations of claim 2.

Claim 3 is largely parallel to claim 2, with the difference that the destroying unit is described as making error correction impossible in response to certain indications. As

one cannot perform error correction on data which has been destroyed, this is not believed to be a significant new limitation as compared to claim 2, and Appellants do not present new arguments beyond asserting that the references at issue do not disclose or suggest the limitations of claim 3, but submit that claim 3 should be allowed “for at least substantially the same reasons” set forth with regard to the similar features of claim 2. Examiner, in turn, holds that claim 3 is unpatentable for substantially the same reasons set forth with regard to the similar features of claim 2.

Claim 5 is for the most part similar to claim 3, but recites an identifying unit rather than a determining unit. Examiner does not believe that identifying whether the medium to be reproduced is a medium dedicated to reproduction or a recordable medium is substantively different from determining whether the medium to be reproduced is a medium dedicated to reproduction or a recordable medium; nor do Appellants present any argument for a substantive difference. Claim 5 also recites an output unit which outputs video data and/or audio data representing a reason why reproduction is not possible. Appellants do not even argue for the nonobviousness of the output unit, but submit that claim 5 should be allowed “for at least substantially the same reasons” set forth with regard to the similar features of claim 2. Examiner, in turn, holds that claim 5 is unpatentable for substantially the same reasons set forth with regard to the similar features of claim 2.

Claim 7 is closely parallel to claim 3 (reciting a determining unit, as in claims 2 and 3, rather than an identifying unit, as in claim 5), with the additional feature of an output unit which outputs a signal instructing video data and/or audio data representing

a reason why reproduction is impossible to be outputted. Appellants do not even argue for the nonobviousness of the output unit, but submit that claim 7 should be allowed for at least substantially the same reasons set forth with regard to the similar features of claim 2. Examiner, in turn, holds that claim 7 is unpatentable for substantially the same reasons set forth with regard to the similar features of claim 2.

Claim 15 is a method claim closely parallel to apparatus claim 2, with the minor variation that claim 15 recites “and simultaneously judging error correction to be impossible” in the step of destroying reproduced data so as to make reproduction of the video data and/or audio data impossible. However, if data is destroyed altogether, correcting it is held to be impossible of necessity. Appellants do not make a case for the separate patentability of claim 15, or refute Examiner by giving examples of correcting data which has been destroyed. Appellants merely submit that claim 15 should be allowed “for at least substantially the same reasons” set forth with regard to the similar features of claim 2. Examiner, in turn, holds that claim 15 is unpatentable for substantially the same reasons set forth with regard to the similar features of claim 2.

Claim 25 depends on claim 2, and is itself largely parallel to claim 24 (which depends on claim 1), with the difference that claim 25 refers to destroying reproduced data where claim 24 refers to stopping reproduction. Appellants do not make new arguments with regard to claim 25, but only submit that the references relied upon (plus Park '826) do not disclose or suggest the features of claim 25 “for at least substantially the same reasons discussed above” with regard to the similar features of claim 2.

Examiner holds that claim 25 is obvious in view of the cited references for substantially the same reasons as claim 2.

Claims 26, 28, 30, and 37 are substantially parallel to claim 25, and depend on claims 3, 5, 7, and 15, respectively. Appellants do not present new or distinct arguments for any of these dependent claims, but merely submit that each should be allowed "for at least substantially the same reasons" as claim 2; Examiner holds that each of these dependent claims should be rejected for substantially the same reasons as claim 2.

The third and last major issue in the case is whether claims 12-13 and 34-35 should be rejected as unpatentable over Linnartz in view of Yokota (Yokota et al., U.S. Patent 5,633,841) and Fox (the abstract of the article, "Wobble Drives Pirates off the Digital Seas"). At the outset, Appellants criticize Examiner's reliance on an abstract of Fox, rather than on the underlying Fox document itself, and quote from the Board's decision in Ex parte Jones, 62 USPQ2d 1206, saying that "the preferred practice is for the examiner to cite and rely on the underlying document. When an examiner cites and relies only on an abstract, the applicant may wish to obtain a copy a copy of the underlying document, and submit a copy to the examiner when responding to a rejection relying on an abstract."

In light of this position taken by the Board, Appellants have submitted a copy of the underlying Fox document (in the After Final IDS papers numbered 25 and 26 in the file), for which courtesy Examiner thanks Appellants. However, upon reading the Fox

article in its entirety, Examiner sees no reason to judge the abstract to be inaccurate in summarizing the Fox article, or to withdraw the conclusions formed on the basis of the abstract.

Appellants argue that Copeland (U.S. Patent 5,659,513) and the Fox abstract (the Fox article refers to Copeland's invention) disclose that the disk dedicated to reproduction has wobbled grooves, and that the recorded disk has no wobbled grooves, which is exactly the opposite of the situation recited in claim 12, which recites that said medium dedicated to reproduction has no wobbled grooves, and that said recordable medium has wobbled grooves. Examiner responds that there are several weak points in this argument. First, it is to be noted that, according to the final four lines of claim 12, reproduction is to be stopped if a wobble is not detected; Fox teaches that playing is to be allowed if a wobble is detected, and prevented if a wobble is not detected; therefore, there is an important similarity in the ways that claim 12 and Fox use wobbles. In both, the detected presence of wobbles allows an operation to occur, the absence thereof stops the operation. Therefore, it is held to be the fair teaching of Fox that wobbles must be detected on a disk for an operation, such as reproduction, to be judged as authorized and allowed to proceed. Moreover, even accepting *ad arguendo* that the use of wobbles taught by Fox is in an important sense the opposite of that recited in claim 12, Examiner disputes that this feature of claim 12 would be a nonobvious difference from the prior art. There are many examples of things being done in both of two opposite ways, e.g. driving on the left in England, but on the right in America, or reading from left to right in English, but from right to left in Hebrew. Nodding the head

means yes in some cultures, but no in others. One can write in dark print on a light background, or in light print on a dark background. Thus, using a known means of conveying information to convey opposite information should be considered obvious and not grounds for patentability.

Further reason for believing claim 12 to be unpatentable is found in Linnartz, column 6, lines 54-67. Linnartz discloses that recordable media may carry a fixed mark identifying the medium as recordable (lines 61-62), and that such a mark can be represented by a wobble groove (lines 58-60). Thus, it cannot be considered novel and unprecedented for a recordable medium to have wobbled grooves.

Claim 13 is similar to claim 12, but with the addition of a medium identification code detecting unit, something disclosed in Linnartz, the primary reference. Appellants, unsurprisingly, argue that Linnartz, Yokota, and Fox (the abstract) do not disclose or suggest the combination of a medium dedicated to reproduction having no wobbled grooves, and a recordable medium having wobbled grooves in claim 13 for the same reasons that these references do not do so in claim 12. Appellants do not provide any new arguments, beyond asserting that references relied upon do not disclose or suggest the claimed features. Examiner holds that the references relied upon render claim 13 obvious just as they render claim 12 obvious, for the reasons set forth above.

Claim 34 depends on claim 12, and claim 35 depends on claim 13. Appellants submit that the references relied upon do not disclose or suggest the features of claims 34 and 35 in combination with all of the other features recited in claims 12 and 13, respectively, without going into the specifics of what they believe to be undisclosed and

Art Unit: 3625

unsuggested, and why. Examiner holds that claims 34 and 35 were properly rejected under 35 U.S.C. 103(a) as unpatentable over Linnartz in view of Yokota and Fox (the abstract), as set forth in the Grounds of Rejection section of this Examiner's Answer.


Thus, all claims are believed to be obvious over Linnartz, various secondary references, and well-known facts of which unchallenged official notice was taken. Motivation for all combinations of features is believed to be present, either in the prior art references (principally in Linnartz, the primary reference), or in the knowledge generally available to one of ordinary skill in the art of copy protection, or else in both.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

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